IN THE CLAIMS

Claim 1 has been amended as follows:

1. (Currently amended) A method for forming fluorescent layers on a substrate, comprising the steps of:

vapor depositing a needle-shaped fluorescent layer having needle structures with voids therebetween, composed of fluorescent material, ~~on~~ by producing a vapor jet of said fluorescent material onto a substrate in a vapor-deposition apparatus; ~~and~~

cooling said vapor jet before said vapor jet strikes said substrate by flowing cool inert gas through said vapor-deposition apparatus during the vapor depositing; and

controlling vapor deposition of said fluorescent layer so that said fluorescent layer is deposited on said substrate with lattice imperfections therein, giving said fluorescent layer a density which is reduced, due to said voids and lattice imperfections, in comparison to a density which said fluorescent material has as a solid, to produce a needle-shaped fluorescent layer with optical separation between needle structures.

2. (Previously amended) A method as claimed in claim 1 comprising controlling said vapor deposition to reduce said density of the fluorescent layer by between 5% to 50% of said density that said fluorescent material has as a solid.

Cancel claims 3 and 4.

3. (Cancelled)

4. (Cancelled)

Claim 5 has been amended as follows:

5. (Currently amended) A method as claimed in claim ~~3 wherein said vapor jet is produced in a vapor-deposition apparatus, and~~ 1 comprising introducing said inert gas into said vapor deposition apparatus at a gas pressure below 10 Pa.

6. (Original) A method as claimed in claim 5 comprising introducing said inert gas into said vapor-deposition apparatus at a pressure between 1 Pa and 3 Pa.

Claim 7 has been amended as follows:

7. (Currently amended) A method as claimed in claim [[4]] 1 comprising diverting said inert gas relative to said vapor jet with a baffle before introducing said inert gas into said vapor jet, causing said inert gas to be introduced indirectly into said vapor jet .

Claim 8 has been amended as follows

8. (Currently amended) A method as claimed in claim [[4]] 1 comprising discharging said inert gas from said vapor-deposition apparatus with a pump.

Claim 9 has been amended as follows:

9. A method as claimed in claim [[4]] 1 comprising introducing said inert gas into said vapor-deposition apparatus through a control valve.

Claim 10 has been amended as follows:

10. (Currently amended) A method as claimed in claim [[4]] 1 comprising conducting argon through said vapor-deposition apparatus as said inert gas.

Claim 11 has been amended as follows:

11. (Currently amended) A method as claimed in claim [[4]] 1 comprising introducing said inert gas at a temperature in a range between 0°C and 100°C.

12. (Original) A method as claimed in claim 11 comprising introducing said inert gas at approximately room temperature.

13. (Original) A method as claimed in claim 1 comprising cooling said substrate during said vapor deposition.

14. (Original) A method as claimed in claim 13 comprising maintaining said substrate at a temperature in a range between 50°C and 200°C.

15. (Original) A method as claimed in claim 1 comprising conducting said vapor-deposition at a rate greater than 1 mg $cm^{-2}min^{-1}$.